

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A method comprising:

determining a protocol of an ad hoc service discovery request received from a client via a home proximity network;

translating the protocol of the ad hoc service discovery request into a service discovery protocol used by an Internet-located service registry by way of a generic service discovery format, the translated service discovery request being used to discover an Internet service provider of the service requested;

detecting incompatibilities between the client and the service provider; and

translating the service provided to the client by the service provider in response to the detected incompatibilities.

2. (Previously presented) The method according to Claim 1, wherein translating the protocol includes selecting one of a plurality of service discovery interfaces that are compatible with the Internet-located service registry.

3. (Cancelled)

4. (Original) The method according to Claim 1, wherein detecting the incompatibilities comprises analyzing session descriptions contained within Session Initiation Protocol (SIP) messages exchanged between the client and the service provider.

5. (Original) The method according to Claim 4, wherein the session descriptions transmitted by the client reflect the capabilities of the client.

6. (Original) The method according to Claim 5, wherein the capabilities of the client include media session capabilities.

7. (Original) The method according to Claim 6, wherein the session descriptions transmitted by the service provider reflect the capabilities of the service provider.
8. (Original) The method according to Claim 7, wherein the capabilities of the service provider include media session capabilities.
9. (Original) The method according to Claim 8, wherein translating the service provided comprises translating media received from the service provider into a format compatible with the media session capabilities of the client.
10. (Original) The method according to Claim 4, wherein translating the service provided comprises:
  - modifying the session descriptions received from the client to match the session descriptions received from the service provider; and
  - transmitting the modified session descriptions to the service provider.
11. (Original) The method according to Claim 10, wherein translating the service provided further comprises:
  - modifying the session descriptions received from the service provider to match the session descriptions received from the client; and
  - transmitting the modified session descriptions to the client.
12. (Original) The method according to Claim 4, wherein translating the service provided comprises:
  - receiving messages from the service provider using a first transport protocol; and
  - transmitting the messages received from the service provider to the client using a second transport protocol.

13. (Original) The method according to Claim 12, wherein translating the service provided comprises:

receiving messages from the client using the second transport protocol; and  
transmitting the messages received from the client to the service provider using the first transport protocol.

14. (Currently amended) A system, comprising:

a service requestor coupled to a home proximity network ~~the service translation system~~ and configured ~~adapted~~ to submit a service request using a first ad hoc service discovery protocol;

a service translation proxy coupled to the home proximity network ~~service requestor~~ and configured ~~adapted~~ to:

translate the first ad hoc service discovery protocol of the service request into a second ad hoc service discovery protocol by way of a generic service discovery format, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry;

~~and a service provider coupled to the service translation system and adapted to provide the service requested, wherein the service translation proxy is further adapted to:~~

~~discover an Internet based service provider using the Internet located service registry, wherein the service provider is configured to provide the service requested; and~~

translate the service provided into a format that is compatible with the service requestor.

15-16. (Cancelled)

17. (Currently amended) An apparatus, comprising:

means for receiving a service request from a service requestor via a home proximity network;

means for translating the service request from a first ad hoc service discovery protocol to a second ad hoc service discovery protocol by way of a generic service discovery format, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry;

means for locating a service provider to provide the service requested using the second ad hoc service discovery protocol; and

means for translating the service provided into a format that is compatible with capability information associated with the service requestor.

18. (Previously presented) The apparatus according to Claim 17, further comprising:

means for receiving the service provided using a first transport protocol; and

means for providing the service provided using a second transport protocol.

19. (Currently amended) A computer-readable medium having instructions stored thereon which are executable by an apparatus to perform:

receiving a service request from a service requestor via a home proximity network;

translating the service request from a first service ad hoc discovery protocol to a second ad hoc service discovery protocol by way of a generic service discovery format, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry;

locating a service provider to provide the service requested using the second ad hoc service discovery protocol; and

translating the service provided into a format that is compatible with capability information associated with the service requestor.

20. (Previously presented) The computer-readable medium according to Claim 19, wherein locating a service provider comprises issuing the translated service request to the Internet-located service registry.

21. (Original) The computer-readable medium according to Claim 19, wherein locating a service provider comprises forwarding the service request to another service translation proxy located within the network.

22. (Currently amended) A system home network, comprising:

a plurality of home devices configured adapted to exchange media content in a first format via a home proximity network using a first ad hoc service discovery protocol;

at least one mobile device configured adapted to exchange media content in a second format via the home proximity network using a second ad hoc service discovery protocol, ~~wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet located service registry~~; and

a service translation proxy coupled to the plurality of home devices and the at least one mobile device, wherein the service translation proxy is configured adapted to:

translate service discovery requests between the first and second ad hoc service discovery protocols via a generic service discovery format;

establish services between the plurality of home devices and the mobile device via the home proximity network based on the translated service discovery request; and

translate the media exchanged between the plurality of home devices and the at least one mobile device in response to their respective capabilities determined via the respective first and second service ad hoc discovery protocols.

23. (Cancelled).

24. (Currently amended) The home network system according to Claim 22-23, wherein the proximity connection network includes a Bluetooth connection.

25. (Currently amended) A method comprising:

establishing a mobile device and a home device as entities of a wireless home proximity network, wherein the mobile device communicates via a first ad hoc service discovery protocol and the second device communicates via a second ad hoc service discovery protocol, ~~wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry;~~

translating a service discovery request of the first ad hoc service discovery protocol into a translated request the second ad hoc service discovery protocol by way of a generic service discovery format;

establishing the service between the mobile device and the home device via the home proximity network based on the translated service discovery request;

evaluating differences in media capabilities between the mobile device and the home device via the respective first and second ad hoc service discovery protocols; and

translating media exchanged between the mobile device and the home device in response to the media capability differences between the mobile device and the home device.

26. (Original) The method according to Claim 25, wherein evaluating the differences in media capabilities comprises:

automatically determining the media format capability of the mobile device using a service translation proxy; and

automatically determining the media format capability of the home device using the service translation proxy.

27. (Original) The method according to Claim 26, wherein translating the media comprises:

translating the media format received from the home device into media format that is compatible with the media format capability of the mobile device; and

translating the media format received from the mobile device into media format that is compatible with the media format capability of the home device.

28. (Currently amended) An apparatus comprising:

a network interface capable of communicating with a service requestor via a home proximity network using a first ad hoc service discovery protocol and at least one Internet service provider via a second ad hoc service discovery protocol, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry;

a processor coupled to the network interface and configured with instructions that cause the processor apparatus to:

receive a service request from the service requestor;

translate the service request from the first ad hoc service discovery protocol to the second ad hoc service discovery protocol by way of a generic service discovery format;

locate the service provider to provide the service requested via the second ad hoc service discovery protocol; and

translate the service provided into a format that is compatible with capability information associated with the service requestor as determined by the first and second ad hoc service discovery protocols.

29. (Previously presented) The apparatus according to Claim 28, wherein locating the service provider comprises issuing the translated service request to the Internet-located service registry.

30. (Previously presented) The apparatus according to Claim 28, translating the service provided comprises analyzing session descriptions contained within Session Initiation Protocol (SIP) messages exchanged between the service requestor and the service provider.

31. (Previously presented) The apparatus according to Claim 28, wherein translating the service provided comprises:

receiving messages from the service provider using a first transport protocol; and  
transmitting the messages received from the service provider to the service requestor using a second transport protocol.

32. (New) The method according to Claim 1, wherein translating the protocol of the ad hoc service discovery request into a service discovery protocol used by the Internet-located service registry comprises translating the ad hoc service discovery request via a canonical query transform service operating on the home proximity network that interacts with clients to allow generic service discovery queries to be translated and subsequently issued via specific service discovery protocols.

33. (New) The computer-readable medium according to Claim 19, wherein translating the service request from the first service ad hoc discovery protocol to the second ad hoc service discovery protocol by way of the generic service discovery format comprises translating the service request via a canonical query transform service operating on the apparatus that interacts with clients to allow generic service discovery queries to be translated and subsequently issued via specific service discovery protocols.

34. (New) The apparatus according to Claim 28, wherein translating the service request from the first ad hoc service discovery protocol to the second ad hoc service discovery protocol by way of the generic service discovery format comprises translating the service request via a canonical query transform service operating on the apparatus that interacts with clients to allow generic service discovery queries to be translated and subsequently issued via specific service discovery protocols.